

Claims

1. A network terminal operated by a downloadable operating system, comprising:

5 a power supply for supplying a power to an element of the network terminal;

a nonvolatile storage medium for storing a basic input/output system (BIOS) that automatically operates upon the supplying of the power;

10 a controller to be initialized by the operation of the BIOS in order to enable a connection between the network terminal and a host computer and a download of a terminal operating system (OS) from the host computer to the network terminal; and

15 a volatile storage medium for storing the terminal OS downloaded from the host computer.

2. The network terminal according to claim 1, further comprising:

20 a communication part to be connected with the host computer, for transmitting/receiving a data to/from the host computer;

an encoder for encoding the received data; and

25 at least one input/output port to which at least one user interface is connected.

3. The network terminal according to claim 1, wherein the nonvolatile storage medium is a ROM or a flash memory and the capacity of the nonvolatile storage medium is 512 KB or less for storing the BIOS.

4. The network terminal according to claim 1, wherein the controller is implemented with a programmable SoC (system on a chip) instead of a CPU (central processing unit).

35 5. The network terminal according to claim 4,

wherein the controller implemented with the SoC is re-initialized by the terminal OS stored in the volatile storage medium.

5 6. The network terminal according to claim 1, wherein the volatile storage medium is used as a working memory and is implemented with an 8-MB RAM or less.

10 7. The network terminal according to claim 1, wherein each of the network terminal and the host computer is assigned a unique IP address to identify each other, for the connection therebetween.

15 8. The network terminal according to claim 1, wherein the nonvolatile storage medium stores a program enabling the network terminal to have a unique IP address.

20 9. The network terminal according to claim 2, wherein the at least one user interface includes a monitor, a keyboard, a mouse, a speaker, a microphone, a touch screen, a remote control, or other interfaces using a USB port, a serial port or a memory slot.

25 10. A method of operating a network terminal with a downloadable operating system, comprising the steps of:

supplying a power to a network terminal;

30 checking the network terminal and initializing a controller of the network terminal by using a BIOS of the network terminal that is automatically executed upon the supplying of the power;

connecting the network terminal with a host computer through a network and downloading a terminal OS from the host computer to the network terminal, under control of the initialized controller;

35 storing the downloaded terminal OS in a volatile storage medium; and

performing a network terminal user's manipulation

at the host computer and transmitting a corresponding result from the host computer to the network terminal.

5 11. The method according to claim 10, further comprising the step of re-initializing the controller with the terminal OS stored in the volatile storage medium prior to the step of performing a network terminal user's manipulation at the host computer.

10 12. The method according to claim 11, wherein the controller is implemented with a programmable SoC instead of a CPU.

15 13. The method according to claim 10, further comprising the step of running the host computer and connecting the host computer on the network prior to the step of supplying a power.

20 14. The method according to claim 13, wherein the host computer is provided with the terminal OS for an operation of the terminal network as well as an OS for its operation.

25 15. The method according to claim 10, wherein each of the network terminal and the host computer is assigned a unique IP address to identify each other, for the connection therebetween.

30 16. The method according to claim 10, wherein the step of performing the user's manipulation includes the steps of:

35 transmitting a screen background of the host computer in the form of a bitmap image to the network terminal and displaying the transmitted screen background on a monitor of the network terminal; and
executing an application program of the host

computer according to the network terminal user's manipulation, transmitting a result of the execution in the form of a bitmap image to the network terminal, and displaying the transmitted bitmap image on the monitor of the network terminal.

5 17. The method according to claim 16, wherein each of the bitmap images is a 8 bit format or 16 bit format bitmap image and a simple authentication procedure 10 is optionally employed at either step of transmitting the bitmap image.

15 18. The method according to claim 16, wherein display area and colors of the monitor are adjustable upon a user's demand.